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# ANNUAL REPORT

OF THE

## INSPECTOR OF BUILDINGS,

For the Year 1882.

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DEPARTMENT FOR THE SURVEY AND INSPECTION OF  
BUILDINGS.

OFFICE OF THE INSPECTOR OF BUILDINGS,

OLD STATE HOUSE, January 1, 1883.

*To the Honorable the City Council of the City of Boston: —*

GENTLEMEN, — In compliance with the provisions of Section 7 of Chapter 280 of the Laws of 1871, I have the honor to submit for your consideration a detailed report of the operations of this department for the year ending December 31, 1882.

The methods adopted by the department of examining plans and specifications, as a rule, works admirably, in saving time and trouble; defects in contemplated construction are discovered and obviated without any considerable expense, and thereby many unprofitable disputes and disagreements between owners and contractors are saved.

The department has endeavored in these examinations to point out what it believes to be true economy in construction, viz.: a reasonable outlay in its original, that it may be altered for any changed condition of purpose,—a matter too frequently lost sight of by owners, architects, and contractors. I have heretofore in my annual reports called the attention of your honorable body to the necessity of certain amendments to the

building laws, and of the necessity of such amendments I am more thoroughly convinced.

The operations of the Department the past year have been prosecuted with energy and success, and this I attribute, in a great measure, to the experience and familiarity with the methods adopted of applying the law as acquired by the officers in the discharge of their duties, and their daily duties are performed with increasing proficiency.

The official intercourse of the department with owners, architects, contractors, and builders, has been marked with mutual deference and courtesy.

There has been added to the department, by Chap. 252 of the Acts of 1882, the following : —

The facts and returns relative to steam-boilers required to be ascertained and made to the tax commissioner by Sect. 92 of Chap. 11 of the Public Statutes, shall be ascertained and made in the city of Boston by the Inspector of Buildings, and not by the Assessors.

And also by authority of same chapter, the following ordinance : —

SECTION 1. All hoistways and elevators, except those constructed in dwelling-houses, intended for not more than two families, shall be enclosed in brick shafts, the walls thereof to be not less than eight inches thick, said walls to be carried up to and through the roof to a distance of not less than one foot and six inches above the same, said shafts to be covered with a ventilating skylight.

SECT. 2. The openings through or upon each floor of any building in the city, in which there is or may hereafter be placed any hoistway, elevator, or well-hole, shall be protected by good and sufficient railings and trap-doors, or such other mechanical devices as shall be equivalent thereto, and every hoistway and elevator shall be provided with some sufficient arrangement to prevent the falling of the elevator in case of any accident to the ropes, pulleys, and other hoisting apparatus.

SECT. 3. The openings into the shaft of every elevator to be hereinafter constructed, except passenger elevators, shall be furnished with metal doors hung to rebated iron frames, with iron thresholds to the same, such doors to be provided with springs of sufficient strength to keep them closed when not in use. An equivalent protection against fire may, in the case of passenger elevators, be substituted for such doors.

SECT. 4. No hoistway, elevator, or well-hole shall be used in any building in the city, unless the same has been first inspected and approved by the Inspector of Buildings.

The department, in order to enforce the provisions therein contained, detailed two special officers, and the faithfulness and efficiency with which they have performed their work meet the Inspector's entire approval.

This special work will be prosecuted as rapidly as circum-



stances will admit, until a complete record is made of passenger and freight elevators in this city.

This is an important work, and cannot be overestimated.

I would recommend to your honorable body for consideration the necessity of extending the building limits of the city (so called) so as to embrace that part of the city known as the Charlestown District, it being now one of the most compact sections of our city.

I also take this occasion to return my sincere thanks to the committee of last year for the consideration and attention they have given to the work of the department.

Very respectfully,

I am your obedient servant,

JOHN S. DAMRELL,

*Inspector of Buildings.*

Under the provisions of the statutes relating to buildings in the city of Boston, and under the provisions of the City Ordinances relating to buildings, the department has supervision over the following matters :—

The erection of brick, stone, and iron buildings, under statute provisions, throughout the entire city limits.

The erection of wooden or frame buildings of limited dimensions and range, outside of the building limits, under the provision of the city ordinance.

Additions, alterations, and repairs upon all classes of buildings, with especial reference to their compliance with the present requirements of the building law.

The inspection of unsafe buildings and structures, with full power to require the securing or removal of the same, and in cases of immediate danger, where the security of the public is imperilled in life and limb, authority to enter upon, secure, or take down the same, as the exigencies of the public safety, in the opinion of the Inspector, may require.

The examination of buildings damaged by fire or accident, with authority to enter upon the premises and investigate the origin of fires.

The inspection of buildings liable to take fire from unsafe flues and heating apparatus.

The supervision and the protection of the building limits; the district in which the erection of independent wooden buildings is prohibited by statute law, with a limitation as to wharves.

Special authority invested in the Inspector of Buildings to issue permits for wooden and frame sheds for special purposes, at his discretion, upon wharves situated within the building limits of the city.

The examination for the approval of plans of proposed tenement-houses, public and family hotels, with reference to their compliances with special statute provisions, regulating area for light and ventilation, material of construction, water-closets, drainage, cesspools, height of habitable rooms, window openings, hall-ways, construction of stair-ways, fire-escapes, and the height of the building as regulated by the width of the street upon which they are proposed to be erected.

The enforcement of statutory provisions requiring fire-escapes upon certain buildings in which operatives are employed, in factories, mills, or manufactories, tenement-houses, and hotels, etc.

Authority invested in the Inspector of Buildings, under the Act relating to means of egress from buildings occupied for public purposes, to regulate the entrances, doorways, passage-ways, their width, construction, and number, and obstructions that may be placed therein, the arrangement of the seatings, and the use of combustible materials, draperies, scenery, properties, etc.

The inspection of all hoist-way and elevator openings in buildings, with reference to their construction in conformity with the requirements of statute law and their use.

Compliance with the requisitions of the Board of Health.

The setting of steam-engines and boilers.

The building of furnaces for melting iron, glass, or other metals.

The building of ovens, kilns, etc.

The setting of heating apparatus in all classes of buildings.

The examination of the grade of cellar bottoms of buildings built upon filled land; reporting violations of the same to the Board of Aldermen.

The storage of combustible material in buildings occupied in whole or in part as dwellings, situated within the building limits of the city.

Buildings authorized by the Board of Aldermen to be used for stables are licensed to be occupied for this purpose, under the direction of the Inspector of Buildings.

The examination of buildings, with reference to their being provided with ample and sufficient means of egress, and their compliance with statute requirements, upon petition



for license to occupy the same as a place of public amusement.

Examination of private signs, lanterns, druggists' mortars, etc., located in the public highways, upon a petition to the Board of Aldermen to maintain the same, if secured satisfactory to the Inspector of Buildings.

Authority to apply to the Supreme Judicial Court for an injunction restraining the construction of windows, steps, and porches, projecting into or over any public highway.

The inspection of all steam boilers, so that the facts and returns relative to them, required to be made, may be returned to the Tax Commissioners.

The projection of electric lights throughout the entire city.

The construction, management, and inspection of hoist-ways and elevators throughout the entire city.

#### THE OPERATIONS OF THE DEPARTMENT.

The number of brick, stone, and iron buildings for which permits have been issued during the year . . . . .	235
The number of wooden buildings for which permits have been issued during the year . . . . .	838
The number of sheds situated upon wharves within the building limits of the city for which permits have been issued . . . . .	23
The number of buildings for which permits have been issued to have additions built to them, or to have alterations and repairs made upon them . . . . .	2,205
The number of steam-boilers, engines, etc., for which permits have been issued to set . . . . .	254
The number of ovens, ranges, etc., for which permits have been issued to build . . . . .	35
The number of kilns, kettles, etc., for which permits have been issued to build . . . . .	13
The number of furnaces, etc., for which permits have been issued to build . . . . .	65
The number of heating apparatus, for which notices have been received, with intention to put in . . . . .	464
The number of permits issued for the occupancy of streets, for building purposes . . . . .	1,502
The number of electric lights for which permits have been issued to project . . . . .	106

The number of examinations made on new buildings, in process of erection . . . .	8,972
The number of examinations made on buildings undergoing repairs, alterations, etc. . . .	7,353
The number of special examinations made . . . .	158
The number of examinations made on buildings, with reference to their means of egress in case of fire or panic . . . . .	663
The number of examinations that have been made on hoist-ways and elevators, with reference to their conforming to the provisions of the ordinances . . . . .	450
The number of examinations made with reference to the setting of steam-boilers . . . .	627
The number of examinations made with reference to the setting of heating apparatus, . . . .	530
The number of examinations made for sundry purposes . . . . .	127
The number of examinations made of signs, lanterns, transparencies, and druggists' mortars, located in public highways, upon a petition to the Board of Aldermen to maintain the same, if secured to the satisfaction of the Inspector of Buildings . . . . .	142
The number of examinations made of plans . . . .	995
The number of examinations made as to combustible material being improperly stored in buildings . . . . .	4
The number of examinations made on buildings damaged by fire, or accident, with reference to cause of same . . . . .	395
The number of reports made of buildings, walls, etc., in an unsafe and dangerous condition . . . . .	387
The number of reports made of chimneys in an unsafe and dangerous condition . . . .	566
The number of reports made of flues in a defective condition . . . . .	16
The number of reports made of heating apparatus in an unsafe condition . . . .	12
The number of reports made on boilers, furnaces, etc., in an unsafe condition . . . .	16
The number of reports made on buildings damaged by fire or accident . . . .	661
The number of reports made for sundry purposes . . . . .	863
The number of notices issued on violations . . . .	251

The number of notices issued on unsafe buildings, walls, etc. . . . .	110
The number of notices issued on dangerous chimneys . . . . .	234
The number of notices issued on insufficient egress and fire-escapes . . . . .	182
The number of notices issued on boilers, furnaces, etc., in an unsafe condition . . . . .	23
The number of notices issued on stables, with reference to license of same . . . . .	15
The number of miscellaneous notices issued . . . . .	583
The number of buildings, walls, etc., in an unsafe condition recorded . . . . .	159
The number of chimneys in an unsafe and dangerous condition recorded . . . . .	184
The number of defective flues recorded . . . . .	18
The number of heating apparatus in an unsafe condition recorded . . . . .	19
The number of violations recorded . . . . .	1,547
The number of requisitions issued for better means of egress from buildings (Special), . . . . .	296
The number of cases referred to the City Solicitor . . . . .	2
The number of brick buildings completed, and upon which final reports have been rendered . . . . .	238
The number of wooden buildings completed, and upon which final reports have been rendered . . . . .	788
The number of buildings upon which repairs, alterations, and additions have been completed during the year . . . . .	2,263
The number of steam-boilers, engines, etc., set, and furnaces, ovens, ranges, etc., built, . . . . .	323
The number of heating apparatus set . . . . .	632
The number of fire-escapes completed during the year . . . . .	119
Estimated cost of completed brick buildings . . . . .	\$4,932,640
“ “ “ wooden and frame buildings . . . . .	\$2,379,278
“ “ “ additions, alterations, and repairs . . . . .	\$1,607,051
“ “ setting steam-boilers, engines, etc., building furnaces, ovens, ranges, etc., . . . . .	\$472,552
“ “ setting heating apparatus . . . . .	\$95,106



Estimated cost of securing unsafe buildings, etc. . . . .	\$23,394
“ “ securing dangerous chim- neys . . . . .	\$4,655
“ “ providing fire escapes and additional means of egress, . . . . .	\$14,538
“ “ completed electric lights . . . . .	\$4,210
“ amount of damage to buildings by fire is . . . . .	\$186,372

The number of communications, notices, etc., received, referred, and acted upon . . . . .	814
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From City Council . . . . .	84
Police Department . . . . .	60
Surveyor's Department . . . . .	35
Fire Department . . . . .	5
Board of Health . . . . .	141
general communications . . . . .	499
Total . . . . .	<hr/> 814







[illegible]

*Showing the Number of Stories and Styles of Roofs of the foregoing Buildings.*

WARD.	No. OF BUILDINGS.	No. OF STORIES.						STYLE OF ROOF.				
		1	2	3	4	5	6	Man.	Flat.	Pitch.	Hip.	Sun.
1 . . . . .	1	1	..	..	..	..	..	..	..	1	..	..
2 . . . . .	2	..	1	1	..	..	..	1	1	..	..	..
3 . . . . .	2	..	2	..	..	..	..	..	2	..	..	..
4 . . . . .	4	2	..	2	..	..	..	2	1	1	..	..
5 . . . . .	..	..	..	..	..	..	..	..	..	..	..	..
6 . . . . .	5	..	1	1	3	..	..	..	5	..	..	..
7 . . . . .	7	1	..	..	4	1	1	1	6	..	..	..
8 . . . . .	2	..	..	..	..	2	..	..	2	..	..	..
9 . . . . .	4	..	..	4	..	..	..	1	3	..	..	..
10 . . . . .	8	1	..	1	1	3	2	..	7	1	..	..
11 . . . . .	101	8	23	42	20	6	2	70	20	10	1	..
12 . . . . .	14	..	2	1	9	2	..	..	13	1	..	..
13 . . . . .	5	..	..	4	1	..	..	..	5	..	..	..
14 . . . . .	11	2	2	7	..	..	..	1	8	2	..	..
15 . . . . .	2	1	1	..	..	..	..	..	2	..	..	..
16 . . . . .	12	1	..	..	10	1	..	..	12	..	..	..
17 . . . . .	1	..	1	..	..	..	..	..	1	..	..	..
18 . . . . .	5	..	1	3	1	..	..	..	5	..	..	..
19 . . . . .	8	3	1	..	3	1	..	..	7	..	1	..
20 . . . . .	7	1	2	..	4	..	..	..	6	1	..	..
21 . . . . .	15	..	..	..	15	..	..	..	15	..	..	..
22 . . . . .	5	2	2	1	..	..	..	..	3	1	1	..
23 . . . . .	8	6	2	..	..	..	..	1	2	5	..	..
24 . . . . .	3	3	..	..	..	..	..	..	..	..	1	2
25 . . . . .	3	2	1	..	..	..	..	..	1	2	..	..
Totals . . . . .	235	34	42	67	71	16	5	77	127	25	4	2





*Number of Wood and Frame Buildings in each Ward for which Permits were issued. — Continued.*

	WARDS.																									Total.
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	
Foundry . . . . .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	1
Freight-houses . . . . .	..	..	..	..	..	..	..	..	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	2
Freight-shed . . . . .	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1
Grain elevator conveyor . . . . .	..	..	..	..	..	conveyor	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1
Greenhouses . . . . .	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	2	..	..	6	..	9
Hall . . . . .	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	1
Hose-house . . . . .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	1
Hospital . . . . .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	1
Hotel . . . . .	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	1
Hotel and saloon . . . . .	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	1
Ice-house . . . . .	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	1	1
Lumber-sheds . . . . .	1	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	2	..	..	1	5
Manufactories . . . . .	..	1	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	..	1	5	1	1	13
Mechanical . . . . .	2	2	1	1	..	..	..	..	..	..	..	1	..	..	2	..	..	..	..	..	..	1	2	3	1	16
Offices . . . . .	1	1	1	..	4	..	..	1	..	..	..	..	..	..	..	..	..	..	1	..	1	..	1	..	..	11
Pavilion . . . . .	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	1
Poultry-houses . . . . .	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	6	3	4	14

# REPORT OF INSPECTOR OF BUILDINGS.

15

[illegible]

*Showing the Number of Stories and Style of Roofs of the foregoing Buildings.*

WARD.	NO. OF BUILDINGS.	NO. OF STORIES.				STYLE OF ROOF.			
		1	2	3	4	Man.	Flat.	Pitch.	Hip.
1 . . . . .	41	22	12	7	...	3	15	22	1
2 . . . . .	15	10	5	...	...	4	2	9	...
3 . . . . .	10	2	2	5	1	...	9	1	...
4 . . . . .	21	8	8	5	...	3	18	...	...
5 . . . . .	17	9	4	4	...	...	7	10	...
6 . . . . .	2	2	...	...	...	...	...	2	...
12 . . . . .	1	...	...	1	...	...	1	...	...
13 . . . . .	35	11	10	14	...	1	29	5	...
14 . . . . .	89	35	40	14	...	36	38	13	2
15 . . . . .	24	10	11	3	...	5	8	11	...
18 . . . . .	1	1	...	...	...	...	1	...	...
19 . . . . .	9	4	2	3	...	2	5	2	...
20 . . . . .	70	15	49	5	1	6	18	42	4
21 . . . . .	118	16	86	16	...	10	17	65	26
22 . . . . .	33	14	10	9	...	2	21	5	5
23 . . . . .	131	52	72	7	...	5	26	91	9
24 . . . . .	154	69	83	2	...	7	18	113	16
25 . . . . .	70	23	44	3	...	...	4	58	8
Totals . . . . .	841	303	438	98	2	84	237	449	71

## SPECIAL PERMITS.

The provisions of Section 1 of Chapter 260 of the Acts of 1872 prohibit the erection of independent wooden buildings within the boundaries of the district known as the building limits of the City of Boston, with certain exceptions as to wharves.

Wooden additions to existing buildings in this district can, however, be erected, with a limitation as to height and area to be covered.

These limits are established by the City Council under statute authority; and by an ordinance approved July 8, 1871, were defined as follows:—

Beginning at the intersection of the centre line of Dover and Albany streets, thence running eastwardly through the centre of Dover street to the Harbor Commissioners' line; thence around the northerly portion of the "City Proper," by the said Harbor Commissioners' line to a point on Charles river, opposite the centre line of Parker street or cross dam; thence through the centre of Parker street or cross dam to a point opposite the centre of Ruggles street; thence through the centre of Ruggles street to the centre of Washington street; thence through the centre of Washington street to a point opposite the centre of Palmer street; thence through the centre of Palmer and Eustis streets to the centre of Hampden street; and thence through the centre of Hampden and Albany streets to the point of beginning.

The said district being shown by a shaded red line on a plan made by the City Surveyor, dated June 26, 1871, and deposited in the office of the City Surveyor.

The above ordinance, establishing the boundaries of the building limits, was amended April 6, 1878, by striking out after the words, "to a point on Charles river opposite the centre line of," the words "Parker street or cross dam," and inserting in their place the words, "West Chester park as extended; thence through the centre of West Chester park to its intersection with Boylston-street extension; thence through the centre of Boylston-street extension to the centre of Park street"; and after the words, "dated June 26th, 1871," insert the words, "as amended as shown by a shaded blue line on said plan." December 31, 1881, the following was passed:—

AN ORDINANCE TO AMEND AN ORDINANCE IN RELATION TO THE  
REGULATION AND INSPECTION OF BUILDINGS.

*Be it ordained by the Aldermen and Common Council of the City of  
Boston, in City Council assembled, as follows:—*

SECTION 1. Section 1, of an ordinance in relation to the regulation and inspection of buildings, passed July 8, 1871, and amended April 6, 1878, is hereby repealed and the following enacted in place thereof:—





*Number and Purpose of Buildings in each Ward for which Special Permits have been Issued.*

	WARDS.																									TOTALS.
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	
Ferry-house . . . . .	.	.	.	.	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1
Freight-sheds . . . . .	.	.	.	.	.	4	.	.	.	.	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	5
Market . . . . .	.	.	.	.	.	3	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	3
Mechanical . . . . .	.	.	.	.	.	.	.	.	.	.	.	1	.	.	.	.	.	.	1	.	.	.	.	.	.	2
Storage . . . . .	.	.	.	.	.	3	.	.	.	.	.	3	.	.	.	1	2	.	.	1	.	.	.	.	.	10
Store . . . . .	.	.	.	.	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1
Wharfage . . . . .	.	.	.	.	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1
Totals . . . . .	.	.	.	.	.	13	.	.	.	.	.	5	.	.	.	1	2	.	1	1	.	.	.	.	.	23

*Showing the Number of Stories and Styles of Roofs of the foregoing Buildings.*

WARDS.	No. of Stories.			Style of Roof.			No. of Buildings.
	1	2	3	Man.	Flat.	Pitch.	
1 . . . . .	.	.	.	.	.	.	.
2 . . . . .	.	.	.	.	.	.	.
3 . . . . .	.	.	.	.	.	.	.
4 . . . . .	.	.	.	.	.	.	.
5 . . . . .	.	.	.	.	.	.	.
6 . . . . .	8	4	1	.	12	1	13
7 . . . . .	.	.	.	.	.	.	.
8 . . . . .	.	.	.	.	.	.	.
9 . . . . .	.	.	.	.	.	.	.
10 . . . . .	.	.	.	.	.	.	.
11 . . . . .	.	.	.	.	.	.	.
12 . . . . .	5	.	.	.	5	.	5
13 . . . . .	.	.	.	.	.	.	.
14 . . . . .	.	.	.	.	.	.	.
15 . . . . .	.	.	.	.	.	.	.
16 . . . . .	1	.	.	.	1	.	1
17 . . . . .	2	.	.	.	1	1	2
18 . . . . .	.	.	.	.	.	.	.
19 . . . . .	1	.	.	.	1	.	1
20 . . . . .	1	.	.	.	1	.	1
21 . . . . .	.	.	.	.	.	.	.
22 . . . . .	.	.	.	.	.	.	.
23 . . . . .	.	.	.	.	.	.	.
24 . . . . .	.	.	.	.	.	.	.
25 . . . . .	.	.	.	.	.	.	.
Total . . . . .	18	4	1	.	21	2	23

## STEAM-ENGINES, BOILERS, OVENS, AND FURNACES.

Under the provisions of Section 18 of Chapter 371 of the Acts of 1872, this department has supervision of the setting of all steam-boilers and heating apparatus, and the building of ovens, furnaces, etc.

The prosecution of this work does not, however, involve an inspection of the boilers, with a view to ascertain their condition and safety, and, though frequently called to act for that purpose, it has no legal authority.

## STEAM-ENGINES, BOILERS, FURNACES, ETC.

The number of steam-boilers, engines, furnaces, etc., for which permits have been issued during the year, is as follows : —

## STEAM-ENGINES AND BOILERS, ETC.

Steam-engines	.	.	.	.	.	.	.	38
Steam-boilers	.	.	.	.	.	.	.	162
Steam-boilers and engines	.	.	.	.	.	.	.	52
Hot-air engine	.	.	.	.	.	.	.	1
Gas-engine	.	.	.	.	.	.	.	1
Total	.	.	.	.	.	.	.	254

## OVENS, RANGES, ETC.

Baker's ovens	.	.	.	.	.	.	.	4
Ovens	.	.	.	.	.	.	.	11
Broilers	.	.	.	.	.	.	.	9
Ranges	.	.	.	.	.	.	.	11
Total	.	.	.	.	.	.	.	35

## KILNS, KETTLES, ETC.

Furnace kettles	.	.	.	.	.	.	.	2
Kilns	.	.	.	.	.	.	.	5
Coffee-roasters	.	.	.	.	.	.	.	6
Total	.	.	.	.	.	.	.	13

## FURNACES, ETC.

Melting-furnaces	.	.	.	.	.	.	.	38
Cupola furnace	.	.	.	.	.	.	.	1
Glass furnace	.	.	.	.	.	.	.	1



Forges . . . . .	17
Blacksmith's forges . . . . .	4
Tailor's furnaces . . . . .	2
Sundry . . . . .	2
	<hr/>
Total . . . . .	65
Grand Total . . . . .	367

## HEATING APPARATUS.

Furnaces, and other heating apparatus . . . . .	464
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*Number of Steam-Boilers, Engines, Furnaces, etc., in each Ward, for which Permits have been issued.*

	WARDS.																									Totals.
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	
Baker's Ovens . . . . .																1			1	1			1			4
Blacksmith's forges . . . . .													1	1									2			4
Broilers . . . . .							1			7		1														9
Coffee-roasters . . . . .						4						2														6
Cupalo furnace . . . . .														1												1
Forges . . . . .									2					15												17
Furnace Kettles . . . . .				2																						2
Gas-engine . . . . .										1																1
Glass-furnace . . . . .															1											1
Kilns . . . . .														4		1										5
Hot-air engine . . . . .						1																				1
Melting furnaces . . . . .		5				4	8							20				1								38
Ovens . . . . .	1		1	1			1			2			1				3			1						11
Pipes for heating apparatus . . . . .														1												1
anges . . . . .				1			1			8												1				11

*Number of Steam-Boilers, Engines, Furnaces, etc., in each Ward, for which Permits have been issued. — Continued.*

WARDS.																											Totals.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25			
..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1		
4	4	6	5	..	10	21	2	3	25	15	11	4	5	2	3	4	3	3	10	..	4	6	12	..	162		
3	4	..	4	..	8	6	..	1	2	..	7	3	2	..	3	..	..	1	2	..	1	1	1	3	52		
1	1	1	2	..	1	5	..	..	7	..	5	1	..	2	1	2	..	..	3	..	..	4	2	..	38		
..	..	..	..	..	..	1	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2		
9	14	8	15	..	28	44	2	6	53	15	27	10	49	5	9	9	4	5	17	..	6	14	15	3	367		
Totals																											

## ALTERATIONS, ADDITIONS, AND REPAIRS.

The number of buildings for which permits have been issued to have alterations made upon them, and to have additions built to them, is 2,205, classified as follows :—

[illegible]



*Number and Purpose of Buildings in each Ward for which Permits were issued for Repairs, Alterations, and Additions.*

WARDS.																										
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	
Armories . . . . .	..	1	..	..	2	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	4
Bakeries . . . . .	..	..	..	2	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	1	..	..	..	..	..	4
Boarding-houses . . . . .	..	..	..	..	1	1	1	..	1	2	..	2	2	..	..	..	..	..	..	3	..	..	..	..	..	10
Carriage-houses . . . . .	..	1	1	..	..	..	1	..	1	..	..	..	..	..	1	..	..	..	..	..	..	..	1	..	..	9
Charitable Institutions . . . . .	..	..	..	..	..	..	..	..	2	..	..	..	..	1	..	2	..	..	..	..	..	..	..	1	..	6
Churches . . . . .	..	..	..	..	..	..	..	..	..	1	1	..	1	..	..	1	..	..	2	..	..	1	..	2	..	9
Dwellings . . . . .	69	59	28	32	37	11	24	21	49	25	35	27	30	31	38	13	31	18	29	26	34	19	56	61	24	827
Dwellings and Stables . . . . .	..	..	..	..	..	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2
Dwellings and Stores . . . . .	16	14	4	8	14	14	22	4	8	3	1	20	19	4	10	8	4	7	15	13	4	4	6	8	4	234
Dye-houses . . . . .	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	2
Engine-houses . . . . .	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	1	..	..	..	..	1	..	..	..	3
Factories . . . . .	1	..	..	1	..	..	..	..	..	..	..	..	..	1	..	..	..	..	1	1	..	2	2	2	1	12
Founderies . . . . .	..	2	..	1	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	2	..	..	..	..	..	6
Greenhouses . . . . .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	1	..	..	3
Halls . . . . .	..	..	..	..	1	..	..	..	..	4	..	..	..	..	..	..	..	1	1	2	3	..	1	1	..	14
Hospitals . . . . .	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	2	..	..	..	..	..	..	..	3
Hotels . . . . .	..	1	..	..	1	..	10	..	..	8	2	3	..	..	..	1	2	2	1	..	..	1	..	..	..	32

[illegible]

## MEANS OF EGRESS AND FIRE-ESCAPE.

Under the provisions of the building law, fire-escapes and sufficient means of egress are required in the following classes of buildings:—

Buildings in which operatives are employed in any of the stories above the second story.

Buildings occupied by two or more families on any floor above the second floor from the level of the street.

Hotels, boarding and lodging houses, factories, mill or manufactory.

Buildings occupied in part, or in whole, for any public purpose.

All new buildings belonging to any of the above classes are especially examined in regard to their construction, with reference to fulfilling legal requirements in furnishing suitable and ample means of egress in case of fire or accident.

The number, location, arrangement, and width of the stair-ways; the proposed number of occupants or operatives; the proposed use of the building; its proximity to other buildings, and the materials of which it is built,—all enter into consideration.

Old buildings altered to, or by occupancy brought to, be comprised in any of the above classes of buildings requiring fire-escapes, are also duly inspected, and the necessary means of escape are required, the same as if it was a new building.







[illegible]

*Showing the Number of Stories and Style of Roofs of the  
foregoing Buildings.*

WARDS.	No. OF BUILDINGS.	No. OF STORIES.						STYLE OF ROOF.			
		1	2	3	4	5	6	Man.	Flat.	Pitch.	Hip.
1 . . . . .	5	..	2	3	..	..	..	..	..	5	..
2 . . . . .	13	..	5	8	..	..	..	..	3	6	4
3 . . . . .	8	2	4	2	..	..	..	..	..	7	1
4 . . . . .	6	1	2	2	1	..	..	2	..	4	..
5 . . . . .	5	..	1	3	1	..	..	..	1	2	2
6 . . . . .	25	..	2	9	11	2	1	9	5	11	..
7 . . . . .	27	..	1	7	11	7	1	1	12	14	..
8 . . . . .	9	..	..	6	1	2	..	2	2	5	..
9 . . . . .	7	..	2	3	2	..	..	..	2	4	1
10 . . . . .	36	..	..	10	17	7	2	11	14	10	1
11 . . . . .	7	..	2	4	1	..	..	3	..	3	1
12 . . . . .	29	..	2	6	17	4	..	7	14	4	4
13 . . . . .	29	..	1	15	11	2	..	12	11	6	..
14 . . . . .	7	..	3	3	1	..	..	4	..	2	1
15 . . . . .	6	..	2	3	1	..	..	2	..	3	1
16 . . . . .	9	..	2	6	1	..	..	1	1	3	4
17 . . . . .	20	..	2	10	8	..	..	8	9	2	1
18 . . . . .	2	..	..	..	2	..	..	..	..	..	2
19 . . . . .	6	1	..	5	..	..	..	..	3	2	1
20 . . . . .	4	3	..	1	..	..	..	..	..	4	..
21 . . . . .	6	1	..	4	1	..	..	3	1	2	..
22 . . . . .	5	..	3	2	..	..	..	..	1	4	..
23 . . . . .	4	..	3	1	..	..	..	..	1	3	..
24 . . . . .	20	2	14	4	..	..	..	6	1	3	10
25 . . . . .	1	..	..	1	..	..	..	1	..	..	..
Totals . . . . .	296	10	53	118	87	24	4	72	81	109	34

## FIRE AND ACCIDENT RECORD.

The number of buildings that have been reported as damaged by fire and accident during the year is . 395

January,	29	buildings	damaged,	amount	.	\$13,395
February,	31	"	"	"	.	16,865
March,	22	"	"	"	.	5,440
April,	32	"	"	"	.	23,668
May,	38	"	"	"	.	15,710
June,	64	"	"	"	.	54,247
July,	43	"	"	"	.	7,206
August,	25	"	"	"	.	9,783
September,	18	"	"	"	.	5,512
October,	21	"	"	"	.	6,490
November,	30	"	"	"	.	9,368
December,	42	"	"	"	.	19,688
<hr/>						
Total,	395	"	"	"	.	\$186,372

The probable causes were as follows :—

Accidents . . . . .	2
Bed-clothing in contact with stove . . . . .	1
Bed set on fire, cause unexplainable . . . . .	1
Benzine, explosion of vapor . . . . .	1
Benzine, ignition of vapor . . . . .	2
Boiler, explosion of . . . . .	1
Brass-melting furnace, improperly set . . . . .	1
Careless use of matches . . . . .	1
Caught from an adjoining building . . . . .	60
Caught from a boiler, cause unknown . . . . .	1
Cause not ascertained . . . . .	1
Children playing with matches . . . . .	17
Clothing in contact with range . . . . .	1
Combustion of chemicals . . . . .	1
Cylinder stove, explosion of . . . . .	1
Defective chimneys and flues . . . . .	17
Defective furnaces . . . . .	2
Defective grates . . . . .	4
Defective ovens . . . . .	1
Fire from branding-pot falling on floor . . . . .	1
Fire from plumber's hand-furnace falling on floor . . . . .	1
Fireworks, boys playing with . . . . .	1
Fireworks falling on clothing . . . . .	1
Fireworks falling on roof . . . . .	3
Fire from stove falling on roof . . . . .	1
Floor-timbers projecting into chimney . . . . .	1



Friction of machinery . . . . .	2
Fuel placed against furnace . . . . .	1
Gas, explosion of . . . . .	4
Gas, ignition of . . . . .	1
Gas from naphtha ignited by lighted gas-jet . . . . .	1
Gas stove, upsetting of . . . . .	1
Heated shaft-box in contact with wood-work . . . . .	1
Heated shaft in contact with oiled material . . . . .	1
Heated stove too near wood-work . . . . .	1
Hot coals dropped in shavings or sawdust . . . . .	2
Hot coals falling on clothing . . . . .	1
Hot coals falling on floor . . . . .	1
Hot coals placed against wood-work . . . . .	1
Hot coals placed in box or barrel . . . . .	5
Hot fat, boiling over stove . . . . .	1
Hot fat, explosion of . . . . .	1
Hot solder falling on sawdust . . . . .	1
Incendiary . . . . .	62
Kerosene oil lamp, breaking of . . . . .	6
Kerosene oil lamp, explosion of . . . . .	19
Kerosene oil lamp, upsetting of . . . . .	1
Lighted candle against wood-work . . . . .	1
Lighted candle in contact with Christmas tree . . . . .	1
Lighted gas-jet in contact with show goods . . . . .	3
Lighted gas-jet in contact with wood-work . . . . .	1
Lighted lamp in contact with curtain . . . . .	2
Lighted lamp or match in contact with clothing . . . . .	4
Lighted match dropped on curtain . . . . .	1
Lighted match in contact with varnish . . . . .	1
Lighted match or cigar dropped on a bed . . . . .	3
Lighted match or cigar dropped on floor . . . . .	2
Lighted match or cigar thrown in sawdust . . . . .	2
Lighted match or cigar thrown in waste paper . . . . .	4
Lighted match thrown in chest of drawers . . . . .	1
Lighted match thrown in excelsior . . . . .	1
Lighted match thrown in rubbish . . . . .	4
Lighted match thrown on stairs . . . . .	1
Lighted paper in contact with lounge . . . . .	1
Lighted pipe in contact with clothing . . . . .	1
Lighted pipe falling on mattress . . . . .	1
Lighted pipe in contact with bed clothing and lounge, . . . . .	2
Lightning . . . . .	1
Lime, slacking and taking fire . . . . .	2
Naphtha gas ignited by spark caused by friction of machinery . . . . .	1
Naphtha, ignited by lighted match . . . . .	1
Overheated boiler . . . . .	2

Overheated flue . . . . .	1
Overheated shaft-box . . . . .	1
Overheated smoke-pipe . . . . .	2
Overheated stove . . . . .	9
Rats or mice among matches . . . . .	25
Soot from glue-kettle falling on bench . . . . .	1
Soot in chimney taking fire . . . . .	1
Soot in stove-pipe taking fire . . . . .	1
Sparks entering from chimney by open thimble-hole . . . . .	1
Sparks from chimney falling on roof . . . . .	12
Sparks from fire apparatus falling on roof . . . . .	1
Sparks from fire-box of boiler falling on shavings, etc., . . . . .	2
Sparks from fire-box of boiler falling on wood-work . . . . .	1
Sparks from fire-box of boiler setting fire to ceiling . . . . .	2
Sparks from forge igniting wood-work . . . . .	2
Sparks from furnace falling on floor . . . . .	1
Sparks from furnace lodging in dust . . . . .	1
Sparks from lighted pipe falling on bed . . . . .	1
Sparks from lighted pipe falling on clothing . . . . .	1
Sparks from locomotive blowing into hay-loft . . . . .	1
Sparks from pipe falling on shavings . . . . .	1
Sparks from portable engine falling on roof . . . . .	1
Sparks or lighted match falling on hay or straw . . . . .	2
Spontaneous combustion . . . . .	35
Stove-pipe in contact with floor . . . . .	1
Thawing out frozen water-pipes . . . . .	2
Wood-work in contact with register-box . . . . .	2
Wood-work in contact with open grate . . . . .	1

## STREET PERMITS.

1,502 street permits were issued during the year 1882; of these 1,130 have been cancelled and 2 revoked; 370 remaining in force January 1, 1883.

There were 162 street permits of 1881 in use January 1, 1882; of these 152 have been cancelled, and 10 are still in force.

No. OF ELECTRIC LIGHTS FOR WHICH PERMITS WERE ISSUED  
DURING THE YEAR 1882.

WARD	No.
6	10
7	9
8	2
10	50
11	1
12	24
16	7
19	2
21	1
	<hr/> 106

The number of violations investigated and reported on is 1,547, as follows:—

Altering wooden buildings to tenements . . . . .	2
Apparatus out of repair . . . . .	56
Brick-work supported by wood-work . . . . .	2
Buildings projecting into street . . . . .	2
Cellar-bottom below grade . . . . .	1
Chimneys not high enough . . . . .	3
Chimneys not properly built . . . . .	3
Chimneys not plastered . . . . .	3
Chimneys supported by wood-work . . . . .	9
Defective conductors . . . . .	6
Defective foundations . . . . .	4
Defective gutters . . . . .	2
Dry wall . . . . .	1
Ell exceeding height . . . . .	1
Exceeding range . . . . .	4
Exceeding size . . . . .	1
Fire-escape obstructed . . . . .	1
Fireplace improperly constructed . . . . .	1
Fire-escapes (none) . . . . .	296
Flues not plastered . . . . .	6
Flues, wood-work against . . . . .	30
Floor-beams rest too much on party-walls . . . . .	1
Floors overloaded . . . . .	1

Foundations insufficient . . . . .	6
Framing improper . . . . .	17
Furnace improperly set . . . . .	1
Furnace-top too near ceiling . . . . .	1
Girders not tied . . . . .	1
Girders not properly supported . . . . .	2
Girders not tinned . . . . .	1
Hot-air pipes, wood-work against . . . . .	49
Improper construction . . . . .	17
Improper foundation . . . . .	2
Increasing height of wooden additions . . . . .	2
Insufficient egress . . . . .	2
Insufficient support . . . . .	3
Main partitions not headed and footed . . . . .	1
Material poor . . . . .	8
No chains . . . . .	31
No conductors . . . . .	2
No bars . . . . .	2
No door . . . . .	1
No girts . . . . .	13
No automatic stop . . . . .	3
No gutters . . . . .	3
No metal-covered doors . . . . .	3
No notice . . . . .	20
No permit . . . . .	105
No step-ladder . . . . .	2
No soap-stone collars . . . . .	10
No trimmer arch . . . . .	4
Nails driven into flue . . . . .	7
No ventilating skylight . . . . .	1
No stirrup-irons . . . . .	1
No safety-stop . . . . .	20
Party-walls not built out 18 inches . . . . .	1
Piles not cut at proper grade . . . . .	2
Piers not capped . . . . .	1
Projecting cap . . . . .	1
Projecting steps . . . . .	3
Register-boxes not cased . . . . .	17
Rails (none) . . . . .	379
Shell of chimney flue not thick enough . . . . .	2
Sills below grade . . . . .	2
Smoke-pipe improperly entered into chimney . . . . .	2
Smoke-pipe too near wood-work . . . . .	2
Small-sized cap . . . . .	1
Spruce capping in lieu of hard-pine . . . . .	1
Springs to elevate doors substituted by knobs . . . . .	1
Timbers not tinned . . . . .	1



Timbers, small-sized . . . . .	8
Thimbles improperly set . . . . .	8
Too near wooden buildings . . . . .	2
Traps, none . . . . .	271
Unsafe elevators . . . . .	29
Unsafe smoke-pipe . . . . .	2
Violation of conditions of permit . . . . .	4
Walls not anchored . . . . .	8
Walls not high enough . . . . .	2
Walls not thick enough . . . . .	6
Wooden buildings in limits . . . . .	5
Wooden lintels . . . . .	8
Walls not coped . . . . .	1
<b>Total . . . . .</b>	<b>1,547</b>

Violations of the statutes . . . . .	1,288
“ “ ordinances . . . . .	259
<b>Total . . . . .</b>	<b>1,547</b>

#### NO. OF UNSAFE BUILDINGS REPORTED DURING THE YEAR.

Unsafe buildings . . . . .	79
“ bill-board . . . . .	1
“ bulkhead, stone . . . . .	1
“ balustrade . . . . .	1
“ clothes-shed . . . . .	2
“ cupola . . . . .	1
“ door-caps . . . . .	2
“ dormer window . . . . .	1
“ drop and run . . . . .	1
“ floor . . . . .	5
“ foundation . . . . .	1
“ front . . . . .	1
“ gable-wall . . . . .	1
“ gutters . . . . .	3
“ party-wall . . . . .	1
“ pier . . . . .	2
“ pinnacles . . . . .	4
“ platform . . . . .	1
“ projection . . . . .	1
“ railing . . . . .	3
“ railing on roof . . . . .	1
“ rear wall . . . . .	1
“ roof . . . . .	1
“ shed . . . . .	1

Unsafe slate on roof	.	.	.	.	.	.	2
“ snow-guard	.	.	.	.	.	.	1
“ spire .	.	.	.	.	.	.	1
“ steps .	.	.	.	.	.	.	1
“ stairway bulkhead	.	.	.	.	.	.	1
“ walls .	.	.	.	.	.	.	33
“ wall and chimney	.	.	.	.	.	.	1
“ wall and foundation	.	.	.	.	.	.	1
“ wharf .	.	.	.	.	.	.	1
“ yard-wall	.	.	.	.	.	.	1
Total	.	.	.	.	.	.	<hr/> 159

*Number of Unsafe Buildings, Walls, Chimneys, etc., Rebuilt etc., during the year.*

	Rebuilt.	Secured or repaired.	Taken down.	Not reported on.	Total.
Unsafe buildings . . . . .	3	24	14	38	79
“ bill-board . . . . .		1			1
“ bulkhead-stone . . . . .		1			1
“ balustrade . . . . .				1	1
“ clothes-shed . . . . .		2			2
“ cupola . . . . .			1		1
“ door-caps . . . . .		1	1		2
“ dormer-window . . . . .				1	1
“ drop and run . . . . .				1	1
“ floor . . . . .		3		2	5
“ foundation . . . . .				1	1
“ front . . . . .		1			1
“ gable wall . . . . .	1				1
“ gutters . . . . .		1		2	3
“ party wall . . . . .		1			1
“ piers . . . . .		2			2
“ pinnacles . . . . .				4	4
“ platform . . . . .		1			1
“ projection . . . . .				1	1
“ railing . . . . .		2		1	3
“ railing on roof . . . . .		1			1
“ rear wall . . . . .				1	1
“ roof . . . . .				1	1
“ shed . . . . .		1			1
“ slate on roof . . . . .		1		1	2
“ snow-guard . . . . .				1	1
“ spire . . . . .		1			1
“ steps . . . . .		1			1
“ stairway and bulk-head . . . . .		1			1
“ walls . . . . .	1	14	2	16	33
“ wall and chimney . . . . .				1	1
“ wall and foundation . . . . .				1	1
“ wharf . . . . .				1	1
“ yard-wall . . . . .				1	1
“ heating apparatus . . . . .		12		7	19
Dangerous chimneys . . . . .	103	47		34	184
Defective flues . . . . .		4		14	18
Totals . . . . .	108	123	18	131	380

*Comparative Statement showing the Yearly Operations of the Department since its Organization, October 2, 1871.*

	1871	1872	1873	1874	1875	1876	1877	1878	1879	1880	1881	1882
Brick, stone, and iron buildings . .	245	974	646	520	348	200	265	187	203	309	308	235
Wood and frame buildings . . . .	272	1,051	903	1,278	709	532	532	473	575	494	787	841
Alterations, additions, and repairs .	205	841	1,303	2,052	1,836	1,936	2,343	2,191	2,567	2,294	2,485	2,205
Boilers, engines, furnaces, etc. . . .	. . .	. . . .	71	100	70	124	181	215	309	359	396	367
Heating apparatus . . . . .	. . .	. . . .	97	87	91	257	481	346	440	470	561	474
Special wooden buildings . . . . .	. . .	21	30	23	11	17	13	23	44	9	13	23
Street occupancy . . . . .	. . .	. . . .	. . .	. . .	. . .	. . .	263	1,100	1,311	1,248	1,405	1,502
Buildings damaged by fire . . . . .	71	992	314	351	308	291	349	323	510	352	371	395
Estimated damage thereof . . . . .	\$61,105	\$13,510,569	\$812,195	\$590,720	\$223,906	\$176,654	\$113,727	\$229,640	\$354,311	\$157,907	\$132,653	\$186,372













